CLAIMS:

1. A conjugate comprising a support material and an oligomer or polymer of a saccharide, wherein the oligomer or polymer is linked to said support material via one or more ether, carbamate, ester, or imino linkages between the saccharide and the support material, and wherein the saccharide is fully functionalized.

2. The conjugate of claim 1, wherein the oligomer or polymer is linked to said support material via one or more ether linkages.

3. The conjugate of claim 1, wherein the oligomer or polymer is linked to said support material via one or more imino linkages.

4. The conjugate of claim 1, wherein the support material and the oligomer or polymer of a saccharide are linked by one or more linkers which comprise a group of the formula (I):

$$ACH_2CH_2(CH_2)_{n-1}CH_2B- \qquad (I)$$

between the saccharide and the support material, the group A being attached to the support material, and the group B being attached to the saccharide;

wherein A = -S, -S(O), $-S(O)_2$ or $-\!\!>\!\!Si$;

B is O, NH, a carbamate group, or an ester group, and

n is a number in the range of from 1 to 20.

5. The conjugate of claim 1, wherein the saccharide is glucose.

6. The conjugate of claim 5, wherein the oligomer or polymer of glucose is cellulose.

7. The conjugate of claim 5, wherein the oligomer or polymer of glucose is amylose.

8. The conjugate of claim 5, wherein the oligomer or polymer of glucose is a cyclodextrin.

9. The conjugate of claim 5, wherein the oligomer or polymer of glucose is β-cyclodextrin.

10. The conjugate of claim 5, wherein the linkage is to the 6-carbon atom of the glucose moiety.

11. The conjugate of claim 1, wherein the hydroxyl groups of the saccharide, which are not linked to the support material, are functionalized to form alkoxy groups, aryloxy groups, arylalkyloxy groups, ester groups, carbamate groups, carbonate groups, phosphinate groups, phosphonate groups, phosphate groups, sulfinate groups, sulfite groups, sulfonate groups or sulphate groups.

12. The conjugate of claim 1, wherein the support material is selected from the group consisting of silica gel, Al_2O_3, TiO_2, ZrO_2 and, synthetic porous functional organic polymers.

13. The conjugate of claim 1, wherein the support material is silica gel.

14. A process for preparing a conjugate of a support material and an oligomer or polymer of a saccharide, the process comprising reacting the support material with an oligomer or polymer of a saccharide reactant bearing one or more pendant electrophilic moieties or nucleophilic moieties, wherein the electrophilic moieties or nucleophilic moieties are linked to said saccharide via one or more ether, carbamate, ester, or imino linkages, and the support material has groups that are reactive with said electrophilic moieties or said

nucleophilic moieties, and wherein the saccharide reactant is fully functionalized.

15. The process of claim 14, wherein the electrophilic moieties are silyl moieties having at least one readily hydrolysable group attached to the silicon atom.

16. The process of claim 15, wherein the silyl moieties comprise groups of formula (XII):

$$-SiR^{11}R^{12}R^{13} \qquad (XII)$$

wherein each of R^{11}, R^{12} and R^{13} is an alkyl group or an alkoxy group of up to 6 carbon atoms, an aryl or aryloxy wherein the aryl moiety is a phenyl or α- or β-naphthyloxy group or a halogen atom provided that at least one of R^{11}, R^{12} and R^{13} is a readily hydrolysable group.

17. The process of claim 15, wherein the silyl moieties are groups of the formula (XIV):

$$R^{13}R^{12}R^{11}SiCH_2CH_2(CH_2)_n- \qquad (XIV)$$

wherein each of R^{11}, R^{12} and R^{13} is an alkyl group or an alkoxy group of up to 6 carbon atoms, an aryl or aryloxy wherein the aryl moiety is a phenyl or α- or β-naphthyloxy group or a halogen atom provided that at least one of R^{11}, R^{12} and R^{13} is a readily hydrolysable group, and n is a number in the range of from 1 to 20.

18. The process of claim 15, wherein the oligomer or polymer of a saccharide bearing one or more pendant silyl moieties is formed by reacting an oligomer or polymer of a saccharide bearing one or more pendant alkenyl moieties with a hydrosilylating agent.

19. The process of claim 18, wherein said one or more pendant alkenyl moieties are of the formula (II):

$$CH_2=CH(CH_2)_n- \qquad (II)$$

wherein n is a number in the range of from 1 to 20.

20. The process of claim 18, wherein the hydrosilylating agent is a compound of formula (XIII):

$$HSiR^{11}R^{12}R^{13} \qquad (XIII)$$

wherein each of R^{11}, R^{12} and R^{13} is an alkyl group or an alkoxy group of up to 6 carbon atoms, an aryl or aryloxy wherein the aryl moiety is a phenyl or α- or β-naphthyloxy group or a halogen atom provided that at least one of R^{11}, R^{12} and R^{13} is a readily hydrolysable group.

21. The process of claim 14, wherein the support material is silica gel.

22. The process of claim 14, wherein the electrophilic moieties are groups of the formula (XV):

$$YCH_2CH_2(CH_2)_n- \qquad (XV)$$

where Y is iodide, bromide, chloride, a tosylate group, a mesylate group, or a triflate group, and n is a number in the range of from 1 to 20.

23. The process of claim 22, wherein the support material is a silica gel immobilized with thiol groups, and the reaction of said electrophilic moieties with said thiol groups forms a thio-ether linkage.

24. The process of claim 23, further comprising a step of oxidizing the thio-ether linkage to a sulfoxide or a sulfone.

25. The process of claim 14, wherein the nucleophilic moieties are thiol groups.

26. The process of claim 14, wherein the nucleophilic moieties are thiol groups are of the formula (XVI):

$$HSCH_2CH_2(CH_2)_n- \qquad (XVI)$$

where n is a number in the range of from 1 to 20.

27. The process of claim 25, wherein the support material is a silica gel immobilized with electrophilic groups, and the reaction of said electrophilic moieties with said thiol groups forms a thio-ether linkage.

28. The process of claim 27, further comprising a step of oxidizing the thio-ether linkage to a sulfoxide or a sulfone.

29. The process of claim 14, wherein the saccharide is glucose.

30. The process of claim 29, wherein the oligomer of polymer of glucose is cellulose.

31. The process of claim 29, wherein the oligomer of polymer of glucose is amylose.

32. The process of claim 29, wherein the oligomer of polymer of glucose is a cyclodextrin.

33. The process of claim 29, wherein the oligomer of polymer of glucose is β-cyclodextrin.

34. The process of claim 18, wherein said oligomer or polymer of glucose bearing one or more pendant alkenyl moieties is fully functionalized by converting all free hydroxyl groups to groups selected from the group consisting of alkoxy groups, aryloxy groups, arylalkyloxy groups, ester groups, carbamate

groups, carbonate groups, phosphinate groups, phosphonate groups, phosphate groups, sulfinate groups, sulfite groups, sulfonate groups and sulphate groups.

35. An oligomer or polymer of a saccharide bearing one or more pendant electrophilic moieties or nucleophilic moieties, wherein the electrophilic moieties or nucleophilic moieties are linked to said saccharide via one or more ether, carbamate, ester, or imino linkages, and wherein the saccharide is fully functionalized.

36. The oligomer or polymer of claim 35, wherein the electrophilic moieties are silyl moieties having at least one readily hydrolysable group attached to the silicon atom.

37. The oligomer or polymer of claim 35, wherein the silyl moieties are groups of the formula (XIV):

$$R^{13}R^{12}R^{11}SiCH_2CH_2(CH_2)_n- \qquad (XIV)$$

wherein each of R^{11}, R^{12} and R^{13} is an alkyl group or an alkoxy group of up to 6 carbon atoms, an aryl or aryloxy wherein the aryl moiety is a phenyl or α- or β-naphthyloxy group or a halogen atom provided that at least one of R^{11}, R^{12} and R^{13} is a readily hydrolysable group, and n is a number in the range of from 1 to 20.

38. The oligomer or polymer of claim 35, wherein the electrophilic moieties are groups of the formula (XV):

$$YCH_2CH_2(CH_2)_n- \qquad (XV)$$

where Y is iodide, bromide, chloride, a tosylate, a mesylate, or a triflate, and n is a number in the range of from 1 to 20.

39. The oligomer or polymer of claim 35, wherein the nucleophilic moieties are thiol groups.

40. The oligomer or polymer of claim 39, wherein the thiol groups are of the formula (XVI):

$$SHCH_2CH_2(CH_2)_n- \qquad (XVI)$$

and n is a number in the range of from 1 to 20.

41. A chromatographic process comprising separating compounds using, as a stationary phase, a conjugate which comprises a support material linked to oligomers or polymers of a saccharide, which linking is via one or more ether, carbamate, ester, or imino linkages between the saccharide moieties and the support material, and wherein the saccharide moieties are fully functionalized.

42. The chromatographic process of claim 41, wherein the conjugate is used as a chiral stationary phase in enantiomeric separation or enantiomeric analysis.